



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Application of: G. Hirst et al.

Serial No.: 09/815,310 ✓

Filed: March 22, 2001 ✓

Entitled: PYRAZOLOPYRIMIDINES AS
THERAPEUTIC AGENTS ✓

ART UNIT: 1614

EXAMINER: Not yet assigned

Attorney Docket No.: BBC-072/B

Assistant Commissioner for Patents
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §§ 1.56, 1.97 AND 1.98**

Sir/Madam:

In accordance with the duty of disclosure under 37 CFR § 1.56, Applicants submit this Information Disclosure Statement pursuant to 37 CFR §§ 1.97 and 1.98 for the above-identified application. Applicants makes the following publications of record in the above-identified application.

U.S. Patent Documents

Vallee *et al.*, October 30, 1990, U.S. Pat. No. 4966849

Levitzki *et al.*, June 8, 1993, U.S. Pat. No. 5217999

Spada *et al.*, April 12, 1994, U.S. Pat. No. 5302606

Eissenstat *et al.*, July 19, 1994, U.S. Pat. No. 5330992

Firestein *et al.*, July 8, 1997, U.S. Pat. No. 5646128

Foreign Patent Documents

Thomas *et al.*, September 25, 1997, PCT Publication No. WO 97/34876

Lohmann *et al.*, June 26, 1997, PCT Publication No. WO 97/22596

Thomas *et al.*, November 13, 1997, PCT Publication No. WO 97/42187

Jirousek *et al.*, November 6, 1997, PCT Publication No. WO 97/40830

Aiello *et al.*, November 6, 1997, PCT Publication No. WO 97/40831

Foreign Patent Documents (continued)

Dow *et al.*, December 10, 1992, PCT Publication No. WO 92/21660
Spada *et al.*, November 26, 1992, PCT Publication No. WO 92/20642
Dow *et al.*, October 17, 1991, PCT Publication No. WO 91/15495
Buzetti *et al.*, July 7, 1994, PCT Publication No. WO 94/14808
Ferrara *et al.*, May 11, 1994, PCT Publication No. WO 94/10202
Dobrusin *et al.*, February 17, 1994, PCT Publication No. WO 94/03427
Achen *et al.*, February 26, 1998, PCT Publication No. WO 98/07832
Heindl *et al.*, April 24, 1997, PCT Publication No. WO 97/14696
Erion *et al.*, August 18, 1994, PCT Publication No. WO 94/18215
Barker, November 8, 1995, European Pat. No. 0566226

Other Publications

Schlessinger and Ulrich, (1992), *Neuron*, **9**:383-391
Armstrong, (1993), *Clinical Infectious Diseases*, **16**:1-7
Stacker *et al.*, (1998), Angiogenesis and Cancer Conference, Amer. Assoc. Cancer Res., Orlando, FL
Williams, (1997), *Diabetologia*, **40**: S118-120
Zindy *et al.*, (1992), *Biochemical & Biophysical Research Communications*, **182**:1144-1154
Buchdunger *et al.*, (1995), *Proc. Of the National Academy of Science USA*, **92**:2558-2562
Borthwick *et al.*, (1995), *Biochemical & Biophysical Research Communications*, **210**(3):738-745
Badger *et al.*, (1996), *J. of Pharmacology and Experimental Therapeutics*, **279**:1453-1461
Vousden, (1993), *FASEB Journal*, **7**:872-879
Olofsson *et al.*, (1998), *Proc. Natl. Acad. Sci. U. S. A.*, **95**(20): 11709-11714
Shoelson, (1997), *Curr. Opin. Chem. Biol.*, **1**(2), 227-234
Meyer *et al.*, (1999), *EMBO J.*, **18**(2), 363-374
Expert Opin. Ther. Pat. (1998), **8**(4): 475-478
Witzenbichler *et al.*, (1998), *Am. J. Pathol.*, **153**(2):381-394
Lymboussaki *et al.*, (1998), *Am. J. Pathol.*, **153**(2):395-403
Achen *et al.*, (1998), *Proc. Natl. Acad. Sci. U. S. A.*, **95**(2), 548-553
Cowburn, (1997), *Curr. Opin. Struct. Biol.*, **7**(6), 835-838
Solomon *et al.*, (1992), *Cell*, **63**:1013-1024
Oelrichs *et al.*, (1993), *Oncogene*, **8**(1):11-15

Other Publications (continued)

- Ferrara *et al.*, (1997), *Endocrine Reviews*, **18**(1); 4-25
- Shawver *et al.*, (1997), *Drug Discovery Today*, **2**:50-63
- Kohn *et al.*, (1994), *J. of Cell. Biochem.*, **54**:440-452
- Powis, (1994), *Pharmacology & Therapeutics*, **62**:57-95
- Pines, (1992), *Curr. Opin. Cell Biol.*, **4**:144-148
- Korpelainen and Alitalo, (1998), *Curr. Opin. Cell Biol.*, 159-164
- Kolch *et al.*, (1995), *Breast Cancer Research and Treatment*, **36**: 139-155
- Pines, (1993), *Trends in Biochemical Sciences*, **18**:195-197
- Courtneidge, (1994), *Seminars in Cancer Biology*, **5**:236-246
- Bolen, (1993), *Oncogene*, **8**:2025-2031
- Klagsburn and D'Amore, (1996), *Cytokine & Growth Factor Reviews*, **7**: 259-270
- Draetta, (1993), *Trends in Cell Biology*, **3**:287-289
- Solomon *et al.*, (1992), *Mol. Biol. Of the Cell*, **3**:13-27
- Osmani *et al.*, (1991), *Cell*, **67**:283-291
- Brickell, (1992), *Critical Reviews in Oncogenesis*, **3**(4):401-406
- Myers *et al.*, (1997), *Bioorganic & Medicinal Chemistry Letters*, **7**(4):421-424
- He *et al.*, (1997), *J. of Virology*, **71**:405-411
- Yarden and Ullrich, (1988), *Ann. Rev. Biochem.*, **57**:433-478
- Shibuya *et al.*, (1990), *Oncogene*, **5**:519-524
- Murray and Kirschner, (1989), *Nature*, **339**:275-280
- Hunter and Pines, (1994), *Cell*, **79**:573-582
- Aplin *et al.*, (1996), *J. of Neurochemistry*, **67**:699-707
- Lees, (1995), *Curr. Opin. Cell Biol.*, **7**:773-780
- Perkins *et al.*, (1997), *Science*, **275**:523-527
- Hosoi *et al.*, (1995), *J. of Biochem.(Tokyo)*, **117**:742-749
- Millauer *et al.*, (1993), *Cell*, **72**:835-846
- Tanaka *et al.*, (1996), *Nature*, **383**:528-531
- Maglione *et al.* (1993), *Oncogene*, **8**:925-31
- Jakeman *et al.*, (1993), *Endocrinology* **133**(2): 848-859
- Mustonen and Alitalo, (1995), *J. Cell Biol.*, **129**:895-898
- Beg and Baltimore, (1996), *Science*, **274**:782-784
- Wang *et al.*, (1996), *Science*, **274**:784-787

Other Publications (continued)

- Van Antwerp *et al.*, (1996), *Science*, **274**:787-789
- Sherr, (1993), *Cell*, **73**:1059-1065
- Girard *et al.*, (1991), *Cell*, **67**:1169-1179
- Pagano *et al.*, (1992), *EMBO Journal*, **11**:961-971
- Rosenblatt *et al.*, (1992), *Proc. Nat. Academy of Sci. USA*, **89**:2824-2828
- Walker and Maller, (1991), *Nature*, **354**:314-317
- DeVries *et al.*, (1992), *Science*, **255**:989-991
- Quelle *et al.*, (1993), *Genes & Development*, **7**:1559-1571
- Terman *et al.*, (1991), *Oncogene*, **6**:1677-83
- Resnitzky *et al.*, (1994), *Mol. & Cell. Biol.*, **14**:1669-1679
- Terman *et al.*, (1992), *Biochem. Biophys. Res. Comm.*, **187**:1579-86
- Matsushime *et al.*, (1994), *Mol. & Cel. Biol.*, **14**:2066-2076
- Ohtsubo and Roberts, (1993), *Science*, **259**:1908-1912
- Kinsella *et al.*, (1992), *Exp. Cell Res.*, **199**:56-62
- Ullrich and Schlessinger, (1990), *Cell*, **61**:203-212
- Takano *et al.*, (1993), *Mol. Bio. Cell*, **4**:358A
- Fantl *et al.*, (1992), *Cell*, **69**:413-423
- Wright *et al.*, (1992), *J. Cellular Phys.*, **152**:448-57
- Osmani *et al.*, (1991), *EMBO Journal*, **10**:2669-2679
- Songyang *et al.*, (1993), *Cell*, **72**:767-778
- Koch *et al.*, (1991), *Science*, **252**:668-678
- Kim *et al.*, (1993), *Nature*, **362**:841-844
- Stone *et al.*, (1996), *Cancer Research*, **56**:3199-3202
- Ducommun *et al.*, (1991), *EMBO Journal*, **10**(11):3311-3319
- Gautier *et al.*, (1989), *Nature*, **339**:626-629
- Gould and Nurse, (1989), *Nature*, **342**:39-45
- Krek and Nigg, (1991), *EMBO Journal*, **10**(11):3331-3341
- Baeuerle and Henkel, (1994), *Annual Review of Immunology*, **12**:141-179
- Mariani *et al.*, (1994), *Proc. Am. Assoc. Cancer Res.*, **35**:2268
- Songyang *et al.*, (1994), *Mol. Cell. Biol.*, **14**(4):2777-2785
- Ristimaki *et al.*, (1998), *J. Biol. Chem.*, **273**(14),8413-8418
- Matthews *et al.*, (1991), *Proc. Natl. Acad. Sci. USA*, **88**:9026-30

Other Publications (continued)

Jellinek *et al.*, (1994), *Biochemistry*, **33**:10450-56

Kendall and Thomas, (1994), *Proc. Natl. Acad. Sci.*, **90**:10705-09

Migdal *et al.*, (1998), *J. Biol. Chem.*, **273** (35): 22272-22278

Park *et al.*, (1994), *J. Biol. Chem.* **269**(41):25646-54

Ogawa *et al.*, (1998), *J. Biol. Chem.*, **273**(47), 31273-31282

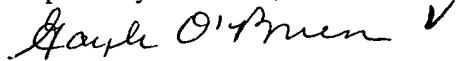
Form PTO-1449 listing each of these documents and photocopies of each document are enclosed herewith for the Examiner's convenience.

This paper is being mailed before the mailing of a first office action on the merits in the above-identified application filed under 35 U.S.C §111 and 37 CFR §1.53(b). Pursuant to 37 CFR §1.97(b)(1), no fee is required with this submission.

Applicant does not intend to represent that any of the documents submitted herein is material prior art to this invention or that the list represents an exhaustive search of documents related to this invention.

Applicant respectfully requests that the documents submitted herein be considered and made of record in this application.

Respectfully submitted,



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INFORMATION DISCLOSURE CITATION

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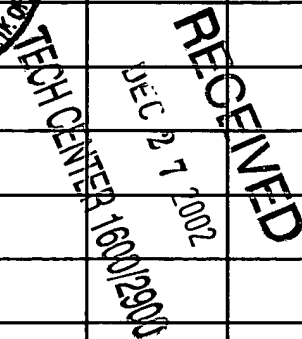
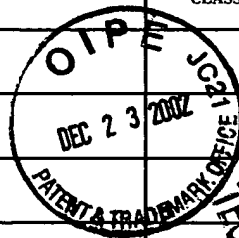
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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,966,849	10/30/90	Vallee et al.			
		5,217,999	06/08/93	Levitzki et al.			
		5,302,606	04/12/94	Spada et al.			
		5,330,992	07/19/94	Eissenstat et al.			
		5,646,128	07/08/97	Firestein et al.			



FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
		97/34876	09/25/97	WO				
		97/22596	06/26/97	WO				
		97/42187	11/13/97	WO				
		97/40830	11/06/97	WO				
		97/40831	11/06/97	WO				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Schlessinger and Ulrich, "Growth Facotr Signaling by Receptor Tyrosine Kinases", (1992), Neuron, 9:383-391
		Armstrong, "Treatment of Opportunistic Fungal Infections", (1993), Clinical Infectious Diseases, 16:1-7

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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Filing Date

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Group Art Unit

1614

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

Borthwick et al., "Inhibition of Glycogen Synthase Kinase-3 by Insulin in Cultured Human Skeletal Muscle Myoblasts", (1995), Biochemical & Biophysical Research Communications, 210(3):738-745

Badger et al., "Pharmacological Profile of SB 203580, a Selective Inhibitor of Cytokine Suppressive Binding Protein/p38 Kinase, in Animal Models of Arthritis, Bone Resorption, Endotoxin Shock and Immune Function", (1996), The Journal of Pharmacology and Experimental Therapeutics, 279:1453-1461

Vousden, " Interactions of Human Papillomavirus Transforming Proteins with the Products of Tumor Suppressor Genes", (1993), FASEB Journal, 7:8720879

Olofsson et al, "Vascular Endothelial Growth Factor B (VEGF-B) Binds to VEGF Receptor-1 and Regulates Plasminogen Activator Activity in Endothelial Cells", "1998), Proc. Natl. Acad. Sci. U. S. A., 95(20): 11709-11714

Shoelson, "SH2 and PTB Domain Interactions in Tyrosine Kinase Signal Transduction", (1997), Curr. Opin. Chem. Biol., 1(2), 227-234

Meyer et al, "A Novel Vascular Endothelial Growth Factor Encoded by Orf Virus, VEGF-E, Mediates Angiogenesis Via Signaling Through VEGFR-2 (KDR) but not VEGFR-1 (Flt-1) Receptor Tyrosine Kinases", (1999), EMBO J., 18(2), 363-374

"4-Anilinoquinazoline Derivatives", (1998), Expert Opin. Ther. Pat., 8(4): 475-478

Witzenbichler et al, "Vascular Endothelial Growth Factor-C (VEGF-C/VEGF-2) Promotes Angiogenesis in the Setting of Tissue Ischemia", (1998), Am. J. Pathol., 153(2), 381-394

Lymboussaki et al, "Expression of the Vascular Endothelial Growth Factor C Receptor VEGFR-3 in Lymphatic Endothelium of the Skin and in Vascular Tumors", (1998), Am. J. Pathol., 153(2): 395-403

Achen et al, "Vascular Endothelial Growth Factor D (VEGF-D) is a Ligand for the Tyrosine Kinases VEGF Receptor 2 (Flk1) and VEGF Receptor 3 (Flt4)", (1998), Proc. Natl. Acad. Sci. U. S. A., 95(2), 548-553

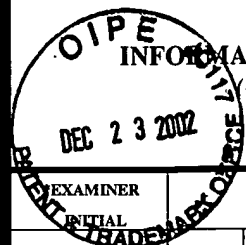
Cowburn, "Peptide Recognition by PTB and PDZ Domains", (1997), Curr. Opin. Struct. Biol., 7(6), 835-838

Solomon et al., "Cyclin Activation of p34cdc2", (1990), Cell, 63:1013-1024

EXAMINER

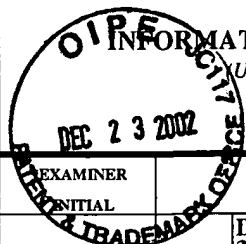
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		Applicant(s) Gavin C. Hirst et al.	
		Filing Date March 22, 2001	Group Art Unit 1614
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
		Oelrichs et al, "NYK/FLK-1: A Putative Receptor Protein Tyrosine Kinase Isolated From E10 Embryonic Neuroepithelium is Expressed in Endothelial Cells of the Developing Embryo", (1993), Oncogene, 8(1):11-15	
		Ferrara et al., "The Biology of Vascular Endothelial Growth Factor", (1997), Endocrine Reviews, 18(1); 4-25	
		Shawver et al., "Receptor Tyrosine Kinases as Targets for Inhibition of Angiogenesis", (1997), Drug Discovery Today, 2:50-63	
		Kohn et al., "Cell Cycle Control and Cancer Chemotherapy", (1994), Journal of Cellular Biochemistry, 54:440-452	
		Powis, "Signalling Pathways as Targets for Anticancer Drug Development", (1994), Pharmacology & Therapeutics, 62:57-95	
		Pines, "Cell Proliferation and Control", (1992), Current Opinion in Cell Biology, 4:144-148	
		Korpelainen and Alitalo, "Signaling Angiogenesis and Lymphangiogenesis", (1998), Curr. Opin. Cell Biol., 159-164	
		Kolch et al., "Regulation of the Expression of the VEGF/VPS and its Receptors: Rile in Tumor Angiogenesis", (1995), Breast Cancer Research and Treatment, 36: 139-155	
		Pines, "Cyclins and Cyclin-dependent Kinases: Take Your Partners", (1993), Trends in Biochemical Sciences, 18:195-197	
RECEIVED DEC 27 2002 TECH CENTER 1600/2900		Courtneidge, "Protein Tyrosine Kinases, with Emphasis on the Src Family", (1994), Seminars in Cancer Biology, 5:236-246	
		Bolen, "Nonreceptor Tyrosine Protein Kinases", (1994), Oncogene, 8:2025-2031	
		Klagsburn and D'Amore, "Vascular Endothelial Growth Factor and its Receptors", (1996), Cytokine & Growth Factor Reviews, 7: 259-270	
EXAMINER		DATE CONSIDERED	

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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Gavin C. Hirst et al.

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Group Art Unit

1614

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

Draetta, "Cdc2 Activation: The Interplay of Cyclin Binding and Thr161 Phosphorylation", (1993), Trends in Cell Biology, 3:287-289

Solomon et al, "Role of Phosphorylation in p34cdc2 Activation: Identification of an Activating Kinase", (1992), Mol. Biol. of the Cell, 3:13-27

Osmani et al., "Parallel Activation of the NIMA and P34cdc2 Cell Cycle-Regulated Protein Kinases is Required to Initiate Mitosis in *A. nidulans*", (1991), Cell, 67:283-291

Brickell, "The p60c-src Family of Protein-Tyrosine Kinases: Structure, Regulation and Function", (1992), Critical Reviews in Oncogenesis, 3(4):401-406

Myers et al., "The Synthesis and SAR of New 4-(N-alkyl-N-phenyl)amino-6,7-dimethoxyquinazolines and 4-(N-alkyl-N-phenyl)amino-pyrazolo[3,4-d]pyrimidines, Inhibitors of CSF-1R Tyrosine Kinase Activity", (1997), Bioorganic & Medicinal Chemistry Letters, 7(4):421-424

He et al., "The Human Cytomegalovirus UL97 Protein is a Protein Kinase That Autophosphorylates on Serine and Threonines", (1997), Journal of Virology, 71:405-411

Yarden and Ullrich, "Growth Factor receptor Tyrosine Kinases", (1988), Ann. Rev. Biochem., 57:433-478

Shibuya et al., "Nucleotide Sequence and Expression of a Novel Human Receptor-Type Tyrosine Kinase Gene (flt) Closely Related to the fms Family", (1990), Oncogene, 5:519-524

Murray and Kirschner, "Cyclin Synthesis Drives the Early Embryonic Cell Cycle", (1989), Nature, 339:275-280

Hunter and Pines, "Cyclins and Cancer II: Cyclin D and CDK Inhibitors Come of Age", (1994), Cell, 79:573-582

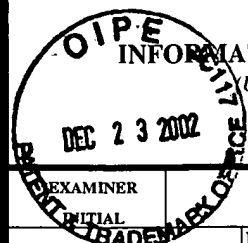
Aplin et al., "In Vitro Phosphorylation of the Cytoplasmic Domain of the Amyloid Precursor Protein by Glycogen Synthase Kinase-3 β ", (1996), Journal of Neurochemistry, 67:699-707

Lees, "Cyclin Dependent Kinase Regulation", (1995), Current Opinion in Cell Biology, 7:773-780

EXAMINER

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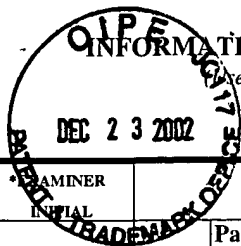
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

- | | |
|---------------------|---|
| EXAMINER
INITIAL | Perkins et al., "Regulation of NF-kB by Cyclin-Dependent Kinases Associated with the p300 Coactivator", (1997), Science, 275:523-527 |
| | Hosoi et al., "Evidence for cdk5 as a Major Activity Phosphorylating Tau Protein in Porcine Brain Extract", (1995), Journal of Biochemistry (Tokyo), 117:741-749 |
| | Millauer et al., "High Affinity VEGF Binding and Developmental Expression Suggest Flk-1 as a Major Regulator of Vasculogenesis and Angiogenesis", (1993), Cell, 72:835-846 |
| | Tanaka et al., "c-Cbl is Downstream of c-Src in a Signalling Pathway Necessary for Bone Resorption", (1996), Nature, 383:528-531 |
| | Maglione et al. "Two Alternative mRNAs Coding for the Angiogenic Factor, Placenta Growth Factor (PlGF), are Transcribed from a Single Gene of Chromosome 14" (1993), Oncogene, 8:925-31 |
| | Jakeman et al., "Developmental Expression of Binding Sites and Messenger Ribonucleic Acid for Vascular Endothelial Growth Factor Suggest a Role for This Protein in Vasculogenesis and Angiogenesis", (1993), Endocrinology, 133(2):848-859 |
| | Mustonen and Alitalo, "Endothelial Receptor Tyrosine Kinases Involved in Angiogenesis", (1995), J. Cell Biol. 129:895-898 |
| | Beg and Baltimore, "An Essential Role for NF-kB in Preventing TNF-a-Induced Cell Death", (1996), Science, 274:782-784 |
| | Wang et al., "TNF- and Cancer Therapy-Induced Apoptosis: Potentiation by Inhibition of NF-kB", (1996), Science, 274:784-787 |
| | Van Antwerp et al., "Suppression of TNF-a-Induced Apoptosis by NF-kB", (1996), Science, 274:787-789 |
| | Sherr, "Mammalian G1 Cyclins", (1993), Cell, 73:1059-1065 |
| | Girard et al., "Cyclin A is Required for the Onset of DNA Replication in Mammalian Fibroblasts", (1991), Cell, 67:1169-1179 |

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Pagano et al., "Cyclin A is Required at Two Points in the Human Cell Cycle", (1992), EMBO Journal, 11:961-971

Rosenblatt et al., "Human Cyclin-Dependent Kinase 2 is Activated During the S and G2 Phases of the Cycle and Associates with Cyclin A", (1992), Proceedings of the National Academy of Science USA, 89:2824-2828

Walker and Maller, "Role for Cyclin A in the Dependence of Mitosis on Completion of DNA Replication", (1991), Nature, 354:314-317

DeVries et al., "The fms-Like Tyrosine Kinase, a Receptor for Vascular Endothelial Growth Factor", (1992) Science, 255:989-991

Quelle et al., "Overexpression of Mouse D-Type Cyclins Accelerates G1 Phase in Rodent Fibroblasts", (1993), Genes & Development, 7:1559-1571

Terman et al., "Identification of a New Endothelial Cell Growth Factor Receptor Tyrosine Kinase", (1991), Oncogene, 6:1677-83

Resnitzky et al., "Acceleration of the G1/S Phase Transition by Expression of Cyclins D1 and E with an Inducible System", (1994), Molecular & Cellular Biology, 14:1669-1679

Terman et al., "Identification of the KDR Tyrosine Kinase as a Receptor for Vascular Endothelial Cell Growth Factor", (1992), Biochem. Biophys. Res. Comm., 187:1579-86

Matsushime et al., "D-Type Cyclin-Dependent Kinase Activity in Mammalian Cells", (1994), Molecular & Cellular Biology, 14:2066-2076

Ohtsubo and Roberts, "Cyclin-Dependent Regulation of G1 in Mammalian Fibroblasts", (1993), Science, 259:1908-1912

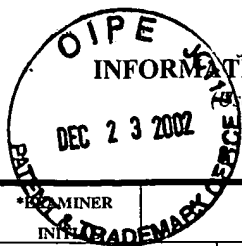
Kinsella, et al. "Protein Kinases C Regulates Endothelial Cell Tube Formation on Basement Membrane Matrix, Matrigel", (1992), Exp. Cell Res., 199:56-62

Ullrich & Schlessinger, "Signal Transduction by Receptors with Tyrosine Kinase Activity", (1990), Cell, 61:203-212

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

- Takano, et al., "Inhibition of Angiogenesis by a Novel Diaminoanthraquinone that Inhibits Protein Kinases C.", (1993), Mol. Bio. Cell, 4:358A
- Fantl et al., "Distinct Phosphotyrosines on a Growth Factor Receptor Bind to Specific Molecules that Mediate Different Signaling Pathways", (1992), Cell, 69:413-423
- Wright, et al., "Inhibition of Angiogenesis In Vitro and In Ovo with an Inhibitor of Cellular Protein Kinases, MDL 27032", (1992), J. Cellular Phys., 152:448-57
- Osmani et al., "Activation of the nimA Protein Kinase Plays a Unique Role During Mitosis that Cannot be Bypassed by Absence of the bimE Checkpoint", (1991), EMBO Journal, 10:2669-2679
- Songyang et al., "SH2 Domains Recognize Specific Phosphopeptide Sequences", (1993), Cell, 72:767-778
- Koch et al., "SH2 and SH3 Domains: Elements that Control Interactions of Cytoplasmic Signaling Proteins", (1991), Science, 252:668-678
- Kim et al., "Inhibition of Vascular Endothelial Growth Factor-Induced Angiogenesis Suppresses Tumor Growth in vivo", (1993), Nature, 362:841-844
- Stone et al., "Reversible. P16-mediated Cell Cycle Arrest as Protection from Chemotherapy", (1996), Cancer Research, 56:3199-3202
- Ducommun et al., "Cdc2 Phosphorylation is Required for its Interaction with Cyclin", (1991), EMBO Journal, 10(11):3311-3319
- Gautier et al., "Dephosphorylation and Activation of Xenopus p34cdc2 Protein Kinase During the Cell Cycle", (1989), Nature, 339:626-629
- Gould and Nurse, "Tyrosine Phosphorylation of the Fission Yeast cdc2+ Protein Kinase Regulates Entry into Mitosis", (1989), Nature, 342:39-45
- Krek and Nigg, "Mutations of p34cdc2 Phosphorylation Sites Induce Premature Mitotic Events in HeLa Cells: Evidence for a Double Block to p34cdc2 Kinase Activation in Vertebrates", (1991), EMBO Journal, 10(11):3331-3341

EXAMINER

DATE CONSIDERED

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INFORMATION DISCLOSURE CITATION

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Applicant(s)

Gavin C. Hirst et al.

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Baeuerle and Henkel, "Function and Activation of NF-kB in the Immune System", (1994), Annual Review of Immunology, 12:141-179

Mariani, et al., "Inhibition of Angiogenesis by FCE 26806, a Potent Tyrosine Kinase Inhibitor", (1994), Proc. Am. Assoc. Cancer Res., 35:2268

Songyang et al., "Specific Motifs Recognized by the SH2 Domains of Csk, 3BP2, fps/fes, GRB-2, HCP, SHC, Syk and Vav", (1994), Mol. Cell. Biol., 14:2777-2785

Ristimaki et al, "Proinflammatory Cytokines Regulate Expression of the Lymphatic Endothelial Mitogen Vascular Endothelial Growth Factor-C", (1998), J. Biol. Chem., 273(14),8413-8418

Matthews et al., "A Receptor Tyrosine Kinase cDNA Isolated from a Population of Enriched Primitive Hematopoietic Cells and Exhibiting Close Genetic Linkage to c-kit", (1991), Proc. Natl. Acad. Sci. USA, 88:9026-30

Jellinek, et al., "Inhibition of Receptor Binding by High-Affinity RNA Ligands to Vascular Endothelial Growth Factor", (1994), Biochemistry, 33:10450-56

Kendall & Thomas, "Inhibition of Vascular Endothelial Cell Growth Factor Activity by an Endogenously Encoded Soluble receptor", (1994), Proc. Natl. Acad. Sci., 90:10705-09

Migdal et al, "Neuropilin-1 is a Placenta Growth Factor-2 Receptor", (1998), J. Biol. Chem., 273 (35): 22272-22278

Park et al., "Placenta Growth Factor", (1994), J. Biol. Chem., 269(41):25646-54

Ogawa et al, "A Novel Type of Vascular Endothelial Growth Factor, VEGF-E (NZ-7 VEGF), Preferentially Utilizes KDR/Flk-1 Receptor and Carries a Potent Mitotic Activity without Heparin-binding Domain", (1998), J. Biol. Chem., 273(47), 31273-31282

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